CLAIMS

What is claimed is:

1. An apparatus comprising:

2   a housing;

3   a mainboard including memory and a first processor mounted

4   within the housing;

5   a first network interface having a first network port and a first

6   address connected to the first processor;

7   at least one expansion slot for receiving a peripheral device: and

8   a network communications link connecting the first network

9   interface to said at least one expansion slot substantially disposed within
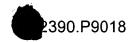
10 the housing,

11 wherein the first processor is enabled to communicate with a

12 peripheral device having a build-in network interface by transmitting data

13 via the first network interface and the built-in network interface over the

14 network communications link using a network transmission protocol.

1   2. The apparatus of claim 1, further comprising a second network

2   interface disposed on the mainboard in proximity to said at least one

3   expansion slot having a second address and a second network port to

4   enable communication between the first processor and a peripheral

5 device that does not include a built-in network interface when the

6 peripheral device is mounted in one of said at least one expansion slots. .

1   3. The apparatus of claim 1, wherein the network communications

2 link comprises a network bus embedded in the mainboard.

1   4. The apparatus of claim 1, wherein the first network interface and

2 the communications link comprise an Ethernet subnet.

1   5. The apparatus of claim 1, further comprising:

2   a second processor; and

3   a second network interface connected to the second processor and

4 the network communications link to enable communication between the

5 second processor and a peripheral device having a built-in network

6 interface.

1   6. A system comprising:

2   a computing machine including a housing and a mainboard to

3 which memory and a first processor are connected, providing a first

4 network interface having a first network port and a first address;

5   a first peripheral device disposed within the housing;

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6   a second network interface providing a second network port and a

7   second network address linked in communication with the first peripheral

8   device;

9   a communications link between the first and second network

10   interfaces substantially disposed within the housing; and

11   software comprising machine instructions that are executable by

12   the first processor that includes a socket application interface (API) that

13   binds the address of the first peripheral device to the second network port

14   and a network interface abstraction layer that provides an abstracted

15   interface that enables an application to communicate with the first

16   peripheral device using a networking protocol.

1   7. The system of claim 6, wherein the communications link and the

2   first and second network interfaces comprise an Ethernet subnet.

1   8. The system of claim 6, wherein the communication link

2   comprises a network signal bus built into the mainboard.

1   9. The system of claim 6, wherein the communications link

2   comprises a token ring.

1   10. The system of claim 6, wherein the second network interface is

2   built into the first peripheral device;

1   11. The system of claim 6, wherein the second network interface is

2   built into the mainboard.

1   12. The system of claim 6, wherein the peripheral device

2   comprises one of a video subsystem, a memory subsystem, a disk

3   controller and a modem.

1   13. The system of claim 6, wherein the mainboard further includes

2   a second processor connected to a third network interface having a third

3   network address and network port connected to the communications link.

1   14. A method for enabling communication between a peripheral

2   device disposed within a computing machine having a processor and an

3   application running on the processor, comprising:

4   providing a network interface for each of the processor and the

5   peripheral device;

6   providing a communication link between the network interfaces of

7   the processor and the peripheral device;

8   creating a network socket for each of the processor and the

9   peripheral device;

10   establishing a connection between the processor and the

11   peripheral device;

12   generating messages with the application;

13   transferring the messages between the processor and the

14   peripheral device using a network transmission protocol.

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1   16. The method of claim 15, wherein the network transmission

2   protocol comprises the TCP/IP protocol.

1   17. The method of claim 15, further comprising applying security

2   measures to determine if an application may connect to a particular

3   peripheral device.

1   18. The method of claim 15, wherein the network transmission

2   protocol comprises the UDP protocol.

1   19. The method of claim 15, wherein the communications link and

2   the network interfaces comprise an internal Ethernet network.

1   20. The method of claim 15, wherein the communications link and

2   the network interfaces comprise an internal token ring network.